

## METHOD AND COMPILER FOR ROUTING POLICY

### Abstract of the Disclosure

A routing policy compiler generates a configuration data abstraction layer of a routing policy which maps configuration to an intermediate layer comprising fields, operators and arguments. A policy repository verifies the intermediate layer against a set of verification rules for one or more client protocols including versions thereof. The policy repository may generate compiled policy transmission language for use by one or more client protocols including versions thereof. The policy compiler supports multiple software versions of client protocols with differing capabilities as well as differing client protocols. In some embodiments, an optimization may be performed on a compiled policy so that route updates are processed more efficiently. The policy compiler may permit the addition of new attributes to a routing protocol without having to recompile. Policy statements may be verified for more than one client protocol including more than one version of a client protocol. Routers may be transitioned between configuration states without transitioning between intervening states.